

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT J. CAVA and JAMES J. KRAJEWSKI

Appeal No. 96-1231
Application 08/165,143¹

ON BRIEF

Before KIMLIN, GARRIS and OWENS, *Administrative Patent Judges*.
OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the examiner's final rejection of claims 1 and 3-6, which are all of the claims remaining in the

¹ Application for patent filed December 10, 1993. According to appellants, the application is a continuation-in-part of Application 08/143,419, filed October 26, 1993, now U. S. Patent No. 5,413,755, issued May 9, 1995.

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application.

THE INVENTION

Appellants claim an article which includes a quantity of material which exhibits superconductivity. The material has a recited general formula which requires that carbon and boron be present within a specified C:B ratio range. Claim 1 is illustrative and reads as follows:

1. An article comprising a quantity of material that exhibits superconductivity,

CHARACTERIZED IN THAT

the material is an intermetallic material of general formula $M_y M'_z B_x C_x$, where $0.5 \leq y \leq 1.5$, $2 \leq z \leq 6$, $1 \leq x' \leq 4$, and $x:x'$ is in the range 0.05-2, with M selected from the group consisting of Y, the lanthanides, and combinations thereof, and M' selected from the group consisting of Ni, Pd, and Ni and Pd.

THE REFERENCES

Cava (Cava '755)	5,413,755	May 9, 1995
Cava et al. (Cava '530)	5,470,530	Nov. 28, 1995

THE REJECTIONS

Claims 1, 3 and 4 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-5 of co-pending Application

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08/177,837. Because Application 08/177,837 has issued as a patent, i.e., Cava '530, we treat this rejection as an obviousness-type double patenting

rejection over claims 1-5 of that patent. Appellants' claims 1 and 3-6 also stand rejected under the judicially created doctrine of obviousness-type double patenting over claim 1 of Cava '755.

OPINION

Appellants do not contest the obviousness-type double patenting rejection of claims 1, 3 and 4 over claims 1-5 of Cava '530. We therefore summarily affirm this rejection.

As for the obviousness-type double patenting rejection of claims 1 and 3-6 over claim 1 of Cava '755, we have carefully considered all of the arguments advanced by appellants and the examiner and agree with appellants that this rejection is not well founded. Accordingly, we do not sustain this rejection.

The superconducting material recited in appellants' claims has a general formula which requires 1 to 4 atomic units of boron and an atomic ratio of carbon to boron in the

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range of 0.05 to 2. The examiner argues (answer, page 4) that in a paper filed in the prosecution of the application which issued as Cava '755, i.e., paper no. 6, filed June 6, 1994, appellants acknowledged that carbon is frequently associated with boron. In this paper (page 2) and in appellants' specification (page 3, lines 22-25), appellants acknowledge the existence of commercially available

99.6% pure boron wherein the impurities include 0.17% carbon. Appellants do not state whether these percentages are atomic percent or weight percent. In either case, a carbon to boron ratio of 0.0017:0.996 is, as argued by appellants (brief, page 3), much less than the minimum atomic ratio of 0.05:1 required by appellants' claims. For this reason and because the examiner has not explained, and it is not apparent, why the subject matter of claim 1 of Cava '755 would have fairly suggested, to one of ordinary skill in the art, adding additional carbon to the material such that it has at least the minimum carbon to boron atomic ratio required by appellants' claims, we do not sustain the obviousness-type double patenting rejection of appellants' claims 1 and 3-6

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over claim 1 of Cava '755.

DECISION

The rejection of claims 1, 3 and 4 under the judicially created doctrine of obviousness-type double patenting over claims 1-5 of Cava '530 is affirmed. The rejection of claims 1 and 3-6 under the judicially created doctrine of obviousness-type double patenting over claim 1 of Cava '755 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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BRADLEY R. GARRIS)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND

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)	INTERFERENCES
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TERRY J. OWENS)	
Administrative Patent Judge)	

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